

6388-0501-0



IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF

Beatrice TOUMI, et al.

SERIAL NO: 09/533,361

FILED: MARCH 22, 2000

:

:

:

:

EXAMINER: YU, GINA C.

GROUP ART UNIT: 1617

FOR: TIGHTENING AGENT COMPRISING
AT LEAST ONE GRAFTED SILICONE POLYMER

DECLARATION UNDER 37 C.F.R. 1.132

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

SIR:

I, Guillaume CASSIN, hereby declare:

1. I am employed by L'ORÉAL as an engineer and have experience in the field of cosmetics preparing and analyzing compositions.
2. The following observations and experiments were carried out by me or under my direct supervision and control.
3. Four compositions were prepared. The polymers were present in each composition in an amount of 7% (active material) by weight.
4. Composition A contained VS80 sold by 3M, a polymer having a polysiloxane backbone grafted by at least one non-silicone organic monomer. Composition A is representative of compositions useful in the invention methods in the present application.
5. Compositions B-D were comparative compositions. Composition B contained a silicone/dimethylaminoethyl methacrylate copolymer sold by Wacker under the trade name

Jetsoft NFS (a conditioning foaming agent). Composition C contained a methyl methacrylate/2-ethylhexyl acrylate/silicone copolymer sold by Tasei Chemical Industries under the trade name Acrit 8HV-1023 (a film forming agent). Composition D contained a butyl acrylate/silicone copolymer sold by Dow Corning under the trade name Dow Corning TIB 4-220 (a film forming agent). The polymers in Compositions B-D were copolymers containing polysiloxane and non-silicone moieties. However, these polymers did not have a polysiloxane backbone grafted by at least one non-silicone organic monomer. They were arranged in a different configuration.

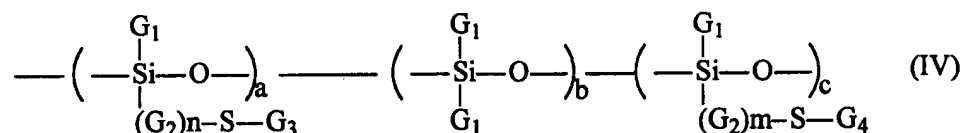
6. The tensioning effect of Compositions A-D was determined according to the method set forth in Example 8 of the present application except that an extensometer was used instead of a Dermometer.

7. Invention Composition A provided a significantly higher absolute value of the percentage of retraction of the stratum corneum than the three Comparative Compositions B-D provided. Specifically, Invention Composition A provided a value of close to 1%, whereas Comparative Compositions B-D provided a value of less than 0.3%: Composition B provided a value of close to 0% (no tensioning effect); Composition C provided a value of less than 0.3%; and Composition D provided a value of close to 0% (no tensioning effect). Thus, Invention Composition A possessed significantly higher tensioning effect than Comparative Compositions B-D.

8. This vast difference in tensioning effect among the different polymers was surprising and unexpected given the similarity of the compositions and the similarity of the moieties in the polymers. Also, this difference in tensioning effect demonstrates that not all film forming agents are tensioning agents (see, for example, Comparative Composition D).

9. The increased tensioning effect obtained with Invention Composition A is representative of the present invention. That is, because tensioning effect corresponds to

effectiveness in reducing cutaneous signs of aging or wrinkles for purposes of the present invention, I would expect compositions comprising an amount of at least one grafted silicone polymer effective to reduce signs of cutaneous aging or wrinkles, wherein said grafted silicone polymer comprises a polysiloxane portion and a portion comprising a non-silicone organic chain, one of the two portions constituting a main chain of the polymer and the other being grafted to the main chain, wherein the grafted silicone polymer is a polymer with a polysiloxane backbone grafted by at least one non-silicone organic monomer and comprises, in its structure, the unit of following formula (IV):



in which the G_1 groups, which are identical or different, represent hydrogen or a $\text{C}_1\text{-C}_{10}$ alkyl group or alternatively a phenyl group; the G_2 groups, which are identical or different, represent a $\text{C}_1\text{-C}_{10}$ alkylene group; G_3 represents a polymeric group prepared by the (homo)polymerization of at least one anionic monomer with ethylenic unsaturation; G_4 represents a polymeric group prepared by the (homo)polymerization of at least one hydrophobic monomer with ethylenic unsaturation; m and n are, independently of one another, equal to 0 or 1; a is an integer ranging from 0 to 50; b is an integer which can be between 10 and 350 and c is an integer ranging from 0 and 50, with the proviso that one of the parameters a and c is other than 0, to possess improved tensioning effects and, thus, improved signs of cutaneous aging/wrinkle reducing effects like those of Invention Composition A. I have no reason to expect otherwise.

10. The difference in tensioning effect and, thus, signs of cutaneous aging/wrinkle reducing effects between the Invention Composition and the Comparative Compositions

demonstrates the surprising and unexpected benefit derived from using the claimed polymers in the Invention Methods.

11. The improved tensioning effects associated with the claimed polymers would, of course, be commercially significant -- compositions containing such polymers would be more effective at reducing signs of aging/wrinkles and, thus, more popular with consumers.

12. The undersigned petitioner declares further that all statements made herein of her own knowledge are true and that all statements made on information and belief are believe to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

13. Further deponent sayeth not.

Guillaume Cassin
Name

Guillaume Cassin
Signature

08-19-2006
Date